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ABSTRACT OF THE DISCLOSURE

In an electronic ballast, a half-bridge inverter is powered from a DC voltage and provides an AC output voltage having a waveform with trapezoidally shaped half-cycles. The DC voltage is obtained by way of a pre-converter with a control input operative to permit control of the magnitude of the DC voltage. The AC voltage is applied across the primary winding of a leakage transformer, whose loosely coupled secondary winding is connected across a gas discharge lamp. The internal inductive reactance of the secondary winding constitutes a lamp ballasting means by way of limiting the magnitude of the resulting lamp current to a desired level. Prior to the flow of lamp current, the magnitude of the DC voltage is controlled by negative feedback to the control input so as to remain at a maximum level. After lamp current has started to flow, by negative feedback derived from the lamp current itself, the magnitude of the DC voltage is reduced so as to bring the magnitude of the lamp current down to the desired level.